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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/688,814

10/17/2000

Yoshinori Uchida

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EXAMINER

WAXMAN, ANDREW

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 01/14/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/688,814

Applicant(s)

UCHIDA ET AL.

Examiner

Andrew M Waxman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 8 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s): ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, 6, 7, 9 – 14, 16, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamalainen et al. (US 5,729,541), hereinafter referred to as Hamalainen.

Regarding claim 1, Hamalainen discloses a mobile communications system (see Abstract and col. 3 lines 41 – 43 and 60 – 62) including a change request means of a base station which sends time slot change information to a subscriber station when it becomes necessary to change the transmission rate for data send to the subscriber (see col. 11 lines 3 – 7). Hamalainen further discloses a time slot changing means of the subscriber station for changing the time slot in which data is received in accordance with the time slot change information (see col. 11 lines 39 – 41).

Regarding claim 2, Hamalainen further discloses the base station using the new time slot to send data after transmitting the time slot change information. See col. 11 lines 39 – 41.

Regarding claim 3, Hamalainen further discloses determining the transmission rate in accordance to the amount of data sent to the subscriber (i.e. need). See col. 3 lines 60 – 62.

Regarding claim 6 and 7, Hamalainen further discloses sending reservation information indicating the time slot change timing to the subscriber station when sending the time slot change information (see col. 11 lines 39 – 41). Hamalainen further discloses the subscriber station determining the time slot change information in accordance with the reservation information sent from the base station. See col. 11 lines 39 – 41.

Regarding claims 9,10, 19, and 20, Hamalainen further discloses adjusting the transmission rate of the system in order optimize the efficiency and the power consumption of the stations. See col. 6 lines 4 – 7.

Regarding claim 11, Hamalainen discloses mobile communication system (see Abstract and col. 3 lines 41 – 43 and 60 – 62) including change request means of a subscriber station which sends a time slot change information to a base station to change the transmission rate for data sent to the base station based on need (see col. 10 line 60 – col. 11 line 2). Hamalainen further discloses a time slot changing means of the base station which changes the time slot in which to receive data from the subscriber in accordance with time slot change information (see col. 11 lines 8 – 11).

Regarding claim 12, Hamalainen further discloses the subscriber station using the new time slot to send data after transmitting the time slot change information. See col. 11 lines 39 – 41.

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Regarding claims 13 and 14, Hamalainen further discloses determining the transmission rate in accordance to the amount of data sent to the base station (i.e. need) (see col. 10 line 60 – col. 11 line 2 and See col. 3 lines 60 – 62). Hamalainen further discloses the subscriber station being a radio telephone within a mobile telecommunication system, and therefore it is inherent that the information being sent from the subscriber to the base station would be information entered through a man-machine interface. See Abstract.

Regarding claims 16 and 17, Hamalainen further discloses sending reservation information indicating the time slot change timing to the base station when sending the time slot change information (col. 10 line 60 – col. 11 line 2). Hamalainen further discloses the base station determining the time slot change information in accordance with the reservation information sent from the subscriber station. See col. 11 lines 3 – 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen in view of Kokufu (H06-53875), hereinafter referred to as Kokufu.

Regarding claim 4, Hamalainen discloses all of the limitations as recited above with respect to claim 3.

Hamalainen does not expressly disclose the change request means of the base station detecting the instantaneous amount of data from the amount of data yet to be sent to the subscriber station.

Kokufu discloses a mobile communication system with a base station (FIG. 3) including a change request means of the base station detecting the instantaneous amount of data from the amount of data yet to be sent to the subscriber station. See pg. 24 pgh. 3.

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to detect the instantaneous amount of data from the amount of data yet to be sent to the subscriber station, as disclosed by Kokufu, into the invention as disclosed by Hamalainen.

One of ordinary skill in the art would have been motivated to do this in order to appropriately partition the data to be sent to the subscriber reducing the probability of data loss due to incorrect packaging of data into packets for transmission.

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Regarding claim 5, Hamalainen discloses all of the limitations as recited above with respect to claim 1.

Hamalainen does not expressly disclose the change request means of the base station obtains the time slot change information from a buffer memory to be used in the transmission of the next frame.

Kokufu discloses a mobile communication system including a base station with a change request means of the base station obtains the time slot change information from a buffer memory to be used in the transmission of the next frame. See page 27 – 28 pgh. 3 and 1 respectively.

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to include obtaining the time slot change information from a buffer memory to be used in the transmission of the next frame, as disclosed by Kokufu, into the invention as disclosed by Hamalainen.

One of ordinary skill in the art would have been motivated to do this in order to allow for a fast, efficient, and inexpensive way to store and retrieve time slot changing information prior to transmitting data in the next frame.

Regarding claim 15, Hamalainen discloses all of the limitations as recited above with respect to claim 11.

Hamalainen does not expressly disclose the change request means of the subscriber station obtaining time slot changing information from a buffer memory to be used for the transmission of the next frame.

Kokufu discloses a mobile communications system in which the change request means (FIG. 8, 25 and 26) of the subscriber station obtaining time slot changing information (UNIT) from a buffer memory to be used for the transmission of the next frame (see page 32 pgh. 2-4).

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to include obtaining time slot changing information from a buffer memory to be used for the transmission of the next frame, as disclosed by Kokufu, into the invention as disclosed by Hamalainen.

One of ordinary skill in the art would have been motivated to do this in order to allow for a fast, efficient, and inexpensive way to store and retrieve time slot changing information prior to transmitting data in the next frame.

Allowable Subject Matter

Claims 8 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Uchida discloses a mobile communication system with shared time slots and frequency channels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M Waxman whose telephone number is (703) 305-8086. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Andrew M. Waxman


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

11/12/04